Claims:

1. A method for indicating enciphering of data transmission between a mobile communication network and a mobile station (MS) in the mobile communication network, **characterized** in that

- signals transferred between a mobile communication network and a mobile station are monitored, and

- on the basis of the signal monitored, the cipher mode is indicated to the user of the mobile station.

2. A method according to claim 1, **characterized** in that in addition to indicating the cipher mode, a change in the cipher mode is indicated to the user of the mobile station.

3. A method according to claim 1 or 2, **characterized** in that the data transmission connection between the mobile communication network and the mobile station (MS) is a radio connection.

4. A method according to any of the claims 1 to 3, **characterized** in that the communication network is a digital communication network, such as a GSM network.

5. A method according to any of the claims 1 to 4, wherein the mobile station (MS) comprises a display unit (8) and an acoustic signal forming element (10), known as such, **characterized** in that the cipher mode is indicated with the display unit (8) and a change in the cipher mode is indicated with the acoustic signal forming element (10).

6. A method according to any of the claims 1 to 4, wherein the mobile station (MS) comprises a light source (LED), known as such, **characterized** in that the cipher mode is indicated with the light source (LED).

7. A method according to claim 6, **characterized** in that a change in the cipher mode is indicated with a flashing light.

8. A method according to any of the claims 1 to 4, **characterized** in that the cipher mode is indicated by vibration.

9. A method according to any of the preceding claims, **characterized** in that the signal to be monitored is a control signal.

10. A method according to any of the preceding claims, wherein a first mobile station (MS1) and a second mobile station (MS2) are in a data transmission connection with each other through at least one mobile communication network, **characterized** in that the cipher mode between the mobile communication network and the first mobile station (MS1) is indicated to the user of the second mobile station (MS2).

11. A method according to any of the preceding claims, wherein the mobile station is used in connection with a data processor (PC) for data transmission between a mobile communication network and the data processor (PC), **characterized** in that the cipher mode is indicated on the display unit (12) of the data processor and a change in the cipher mode is indicated with the acoustic signal forming element (10) of the data processor.

12. An apparatus for indicating enciphering of data transmission between a mobile station (MS) and a mobile communication network in the mobile communication network, **characterized** in that the apparatus comprises:

- means (1) for monitoring signals transferred between a mobile communication network and a mobile station (MS) and
- means (8, 12) for indicating the cipher mode to the user of the mobile station.

13. An apparatus according to claim 12, **characterized** in that the apparatus comprises further means (10, 13) for indicating a change in the cipher mode.

14. An apparatus according to claim 12 or 13, **characterized** in that the means (8, 12) for indicating the cipher mode comprise a dis-

play unit (8) of the mobile station, and the means (10, 13) for indicating a change in the cipher mode comprise an acoustic signal forming element (10), such as a sound generator or the like.

15. An apparatus according to any of the claims 12 to 14, **characterized** in that the means (10, 13) for indicating a change in the cipher mode comprise a light source (LED), known as such.

16. An apparatus according to any of the claims 12 to 15, **characterized** in that the means (10, 13) for indicating a change in the cipher mode comprise means for generating vibration.

17. An apparatus according to any of the claims 12 to 16, **characterized** in that it is provided in a mobile station (MS).

18. An apparatus according to claim 12 or 13, **characterized** in that the means (8, 12) for indicating the cipher mode and the means (10, 13) for indicating a change in the cipher mode are provided in a data processor (PC) communicating with a mobile station (MS).